

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Ludwig Schwoerer et al.

Group Art Unit: TBA

Serial No.: TBA

Examiner: TBA

Filed: Herewith

International

International

App. No.: PCT/FI2003/000690

Filing Date: 22 September 2003

For: METHOD, SYSTEM AND RECEIVER IN RECEIVING A MULTI-CARRIER TRANSMISSION

**INFORMATION DISCLOSURE STATEMENT**

Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Attention: DO/EO/US

Sir:

This Information Disclosure Statement is filed in accordance with 37 C.F.R. §§1.56, 1.97 and 1.98. The items listed on Form PTO-1449, a copy of which is enclosed, are made of record to assist the Patent and Trademark Office in its examination of this application. The Examiner is respectfully requested to fully consider the items and to independently ascertain their teaching.

1. ☐ For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, an English language translation of that item or a portion thereof or a concise explanation of the relevance of that item is enclosed:
2. ☐ For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, a concise explanation of the relevance of that item is incorporated in the specification of the above-identified application.
3. ☐ Any copy of the items listed on the enclosed copy of Form PTO-1449 that is not enclosed with this Information Disclosure Statement was previously cited by or submitted to the Patent and Trademark Office in application Serial No. \_\_\_\_\_, filed \_\_\_\_\_.

4. ☒ No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with:
- ☐ 37 C.F.R. §1.97(b)(1), within three months of the filing date of a national application other than a CPA; or
  - ☒ 37 C.F.R. §1.97(b)(2), within three months of the date of entry into the national stage as set forth in §1.491 in an international application; or
  - ☒ 37 C.F.R. §1.97(b)(3), before the mailing date of a first Office action on the merits; or
  - ☐ 37 C.F.R. §1.97(b)(4), before the mailing date of a first office action after the filing of an RCE under §1.114.
5. ☐ No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a Notice of Allowance (where there has been no prior final action), and is accompanied by one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below.
6. ☐ A fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a notice of allowance (where there has been no prior final action):
- ☐ A check in the amount of \$180.00 is enclosed in payment of the fee.
  - ☐ Charge the fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
7. ☐ A fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(d), after the mailing date of a final action or a notice of allowance, whichever comes first, but before payment of the issue fee, and is accompanied by:
- a. one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below; and
  - b. the fee due under 37 C.F.R. §1.17(p) which is paid as set forth in paragraph 11 below.
8. ☐ This Information Disclosure Statement is being filed in compliance with:
- a. ☐ 37 C.F.R. §1.313(b)(3) or §1.313(c)(1), after the issue fee has been paid and information cited in this Information Disclosure Statement may render at least one claim unpatentable and is accompanied by the attached Petition To Withdraw Application From Issue and fee pursuant to 37 C.F.R. §1.17(h);
  - b. ☐ 37 C.F.R. §1.313(c)(2) or §1.313(c)(3), after the issue fee has been paid and information cited in this Information Disclosure Statement is to be considered in a Request for Continued Examination (RCE) or a Continuation application upon abandonment of the instant application and is accompanied by the

attached Petition To Withdraw Application From Issue and fee pursuant to 37 C.F.R. §1.17(h).

- c. ☐ The fee due under 37 C.F.R. §§1.17(h) is paid as set forth in paragraph 11 below.
9. ☐ I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- ☐ I hereby certify that no item of information in the Information Disclosure Statement filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.
10. ☒ This document is accompanied by ☒ a Search Report ☐ Communication which was cited in a corresponding ☒ PCT and ☐ Foreign counterpart application
11. ☐ A check in the amount of \$ \_\_\_\_\_ is enclosed in payment of the fees due under 37 C.F.R. §§1.17(h) and 1.17(p).
- ☐ Charge the fees due under 37 C.F.R. §§1.17(h) and 1.17(p) to Deposit Account No. 13-4500, Order No. \_\_\_\_\_. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
- ☒ The Commissioner is hereby authorized to charge any additional fees which may be required for this Information Disclosure Statement, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4208-4310. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: March 21, 2006

By: \_\_\_\_\_

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<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION</b>	Attorney Docket: 4208-4310	Serial No.: TBA
	Applicant: Ludwig Schwoerer et al.	
	Filing Date: Herewith	Group Art Unit: TBA

**U.S. PATENT DOCUMENTS**

Examiner Initial	Patent Number	Publication Date	Name	Class	Sub-Class	Filing Date
	6,470,030 B1	October 22, 2002	Park et al.			
	US 2003/142764 A1	July 31, 2003	Keeyill et al.			

**FOREIGN PATENT DOCUMENTS**

Examiner Initial	Patent Number	Publication Date	Country	Class	Sub-Class	Translation
	EP 0903898 A2	March 24, 1999	Europe			<input type="checkbox"/> Yes <input type="checkbox"/> No
	EP 1267535 A1	December 18, 2002	Europe			<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Yes <input type="checkbox"/> No
						<input type="checkbox"/> Yes <input type="checkbox"/> No

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Papers, etc.)**

	Michael Speth et al., "Optimum Receiver Design for OFDM-Based Broadband Transmission-Part II: A Case Study", IEEE Transactions on Communications, Vol. 49, No. 4, April 2001, pp. 571-578.
	Ludwig Schwoerer et al., "Fast Scattered Pilot Synchronization for DVB-T and DVB-H", Proc. 8 <sup>th</sup> International OFDM Workshop, Hamburg, Germany, 24-25 Sept. 2003, 5 pgs.
	PCT International Search Report of International Application No. PCT/FI2003/000690, Date of Completion of Search - February 24, 2004.

Examiner	Date Considered
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	